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**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re application of: Long et al.

Attorney Docket No.: SUN1P711/P5160

Patent: 6,886,157 B2

Issued: April 26, 2005

Title: METHOD AND APPARATUS FOR  
CREATING EFFICIENT NATIVE METHODS  
THAT EXTEND A BYTECODE INTERPRETER

**CERTIFICATE OF MAILING**

I hereby certify that this correspondence is being deposited with the U.S. Postal Service with sufficient postage as first class mail on May 24, 2005 in an envelope addressed to the Commissioner for Patents, P.O. Box 1450 Alexandria, VA 22313-1450.

Signed:

Aurelia M. Sanchez

**REQUEST FOR CERTIFICATE OF CORRECTION  
OF OFFICE MISTAKE  
(35 U.S.C. §254, 37 CFR §1.322)**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450  
Attn: Certificate of Correction

**Certificate  
MAY 31 2005  
of Correction**

Dear Sir:

Attached is Form PTO-1050 (Certificate of Correction) at least one copy of which is suitable for printing. The errors together with the exact page and line number where the errors are shown correctly in the application file are as follows:

**CLAIMS:**


1. In line 3 of claim 8 (column 9, line 34) change "baa been" to --has been--. This appears correctly in Amendment A as filed on September 17, 2004 in the listing of claim 8 as "original." This also appears correctly in the patent application as filed.

JUN 2 2005

Patentee hereby requests expedited issuance of the Certificate of Correction because the error lies with the Office and because the error is clearly disclosed in the records of the Office. As required for expedited issuance, enclosed is documentation that unequivocally supports the patentee's assertion without needing reference to the patent file wrapper.

It is noted that the above-identified errors were printing errors that apparently occurred during the printing process. Accordingly, it is believed that no fees are due in connection with the filing of this Request for Certificate of Correction. However, if it is determined that any fees are due, the Commissioner is hereby authorized to charge such fees to Deposit Account 500388 (Order No. SUN1P711).

Respectfully submitted,  
BEYER WEAVER & THOMAS, LLP

A handwritten signature in black ink, appearing to be 'A. S. Hodes', written over the printed name.

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invoking the native method function; and  
passing to the native method function one or more arguments that allow access to a Java virtual machine state to be used by the native method without making callbacks to the Java virtual machine.

6. (Original) A method as recited in claim 5 further comprising:

passing to the native method a pointer to arguments on a Java stack; and  
passing to the native method a pointer to a method block pointer, such that a new method block pointer can be returned to the interpreter loop.

7. (Original) A method as recited in claim 1 wherein executing the method in an interpreter loop further comprises:

pushing a transition frame corresponding to a particular method onto a first stack in the Java virtual machine;  
the native method pushing a plurality of arguments associated with the transition frame onto the first stack; and  
returning a result code to the interpreter loop.

8. (Original) A method as recited in claim 7 wherein the first stack is a Java stack and the result code indicates that a new transition frame has been pushed on the Java stack.

9. (Original) A method as recited in claim 1 wherein adjusting the state of the JVM further comprises:

storing a result from the native method on a Java stack; and  
modifying a Java stack pointer based on a return code.

10. (Cancelled)

11. (Currently Amended) A system for executing a native method in a Java virtual machine, comprising:

a processor; and  
a computer-readable medium storing a program for execution by the processor, the program comprising:

passing to the native method function one or more arguments that allow access to a Java virtual machine state to be used by the native method without making callbacks to the Java virtual machine.

- 5     6.     A method as recited in claim 5 further comprising:  
passing to the native method a pointer to arguments on a Java stack;  
and  
passing to the native method a pointer to a method block pointer, such  
that a new method block pointer can be returned to the interpreter loop.
- 10     7.     A method as recited in claim 1 wherein executing the method in an  
interpreter loop further comprises:  
pushing a transition frame corresponding to a particular method onto a  
first stack in the Java virtual machine;  
15     the native method pushing a plurality of arguments associated with the  
transition frame onto the first stack; and  
returning a result code to the interpreter loop.
- 20     8.     A method as recited in claim 7 wherein the first stack is a Java stack  
and the result code indicates that a new transition frame has been pushed on  
the Java stack.
- 25     9.     A method as recited in claim 1 wherein adjusting the state of the JVM  
further comprises:  
storing a result from the native method on a Java stack; and  
modifying a Java stack pointer based on a return code.
- 30     10.    A method as recited in claim 1 wherein stack recursion in the Java  
virtual machine is minimized and memory utilized by at least one stack is  
reduced while the Java virtual machine is executing.
- 35     11.    A system for executing a native method in a Java virtual machine,  
comprising:  
a processor; and  
a computer-readable medium storing a program for execution by the  
processor, the program comprising:

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(Also Form PT-1050)

## UNITED STATES PATENT AND TRADEMARK OFFICE CERTIFICATE OF CORRECTION

PATENT NO. : 6,886,157 B2

DATED : April 26, 2005

INVENTOR(S) : Long et al.

It is certified that error appears in the above-identified patent and that said Letters Patent are hereby corrected as shown below:

### In the Claims:

In line 3 of claim 8 (column 9, line 34) change "baa been" to --has been--.

MAILING ADDRESS OF SENDER:

PATENT NO. 6,886,157 B2

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